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# A WIDEBAND 180° MICROWAVE PHASE SWITCH

## ABSTRACT

The invention relates to a wideband 180° microwave  
5 phase switch structure, consisting of microwave or  
millimetric wave elements such as waveguides, microstrips,  
striplines or coaxial cables, which are connected in such a  
way that they can produce a structure with a 180° phase  
difference between the two possible low-loss outputs in the  
10 band width used, with a high band width, flat phase and  
balanced amplitude. The structure disclosed in the invention  
is based on interconnection of two hybrid rings ("magic T")  
that are embodied according to a given configuration of the  
different ports of the two rings, thereby providing a unique  
15 structure resulting in a practical application device with a  
180° phase difference and given properties relative to the  
length of the waves and the impedances relative to the  
resulting lines.

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